

# KEY CONCEPTS

## D, F, Drop Rate

The percentage of students enrolled in a course whose final course outcome is a D, F, or course drop. These represent an unsuccessful course outcome.

$D, F, Drop Rate = \frac{D, F, drop\ count}{course\ enrollment\ count} \times 100$

## Grade Gap

Differences in a course's D, F, Drop rate between groups of students. APIR routinely provides grade gap reports comparing male and female undergraduates, targeted minority and non-targeted undergraduates, and first generation and non-first generation undergraduates.

$Grade\ Gap = D, F, Drop\ rate\ (group\ 1) - D, F, Drop\ rate\ (group\ 2) \times 100$

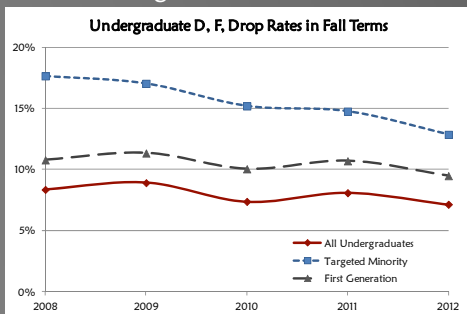
# GRADE GAP TRENDS

Overall, 8% of undergraduate course outcomes are D or F grades or course drop.

D, F, Drop rates are higher for targeted minority and first generation undergraduates.

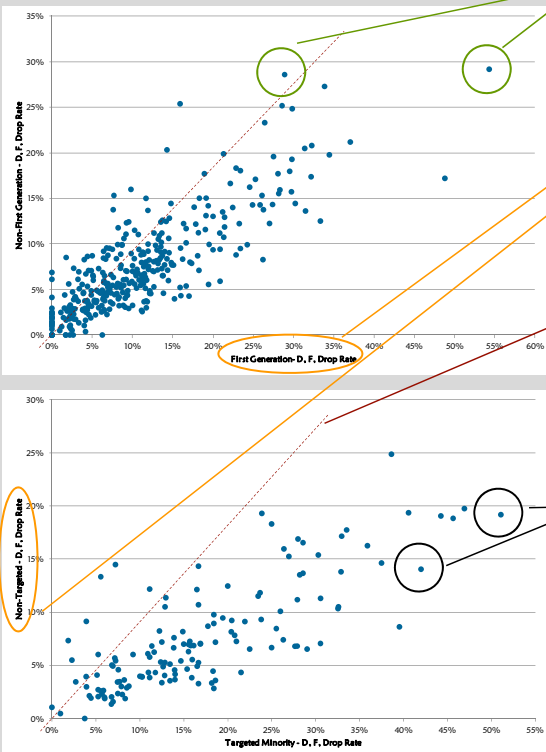
D, F, Drop rates for targeted minority undergraduates have decreased from 18% to 13% over the last five years.

The average D, F, Drop rate for targeted minority and first generation undergraduates is still higher than the overall average.



# IDENTIFYING AND REDUCING GRADE GAPS IN UNDERGRADUATE COURSES

## Examples of Course Grade Gaps



Each blue dot represents a UW-Madison course with at least 35 targeted minority or first generation students and 100 total undergraduates in 2012.

Each dot's position shows the D, F, Drop rate for two groups of students, one on the X axis and one on the Y axis.

The red line shows where the dots would all lie if the D, F, Drop rates were equal between the two groups. The farther a dot is from the red line, the larger the grade gap is.

Courses with large grade gaps have some common characteristics. They tend to be quantitative, open to freshmen, and at an introductory or intermediate level. Grade gaps in the first course of a multi-course sequence can have large impacts on student progression into majors.

# PROMISING STRATEGIES FOR REDUCING COURSE GRADE GAPS

## Become Aware

Academic Planning and Institutional Research (APIR) routinely provides reports on D, F, Drop rate and grade gaps to deans, department chairs, and course instructors. Learning about grade gaps in your courses is the first step in addressing them.

## Review Academic Preparation

Think about the minimum academic preparation students need to succeed in your course and whether that is being clearly communicated to students. APIR analyses of predictors of course success show that lack of preparation for a course contributes to higher D, F, Drop rates and to grade gaps.

Things to consider:

- Have your course prerequisites been reviewed since your course was approved?
- Are prerequisites being communicated clearly (for example, "Chemistry 103" instead of "General Chemistry")?
- Are prerequisites being enforced? Students do attempt courses without completing the stated prerequisites. This behavior is correlated with higher D, F, Drop rates. Consider using available ISIS technology to enforce prerequisites.

## Employ Active Learning Strategies

Courses that have increased small group problem-based interactions, time-on-task, and "flipped classroom" models have seen increases in student success.

## Provide Frequent and Timely Feedback

Course success increases when students have confidence in their learning. Provide frequent feedback and intervene early with struggling students.

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## Ongoing Initiatives to Reduce Grade Gaps

### Madison Initiative for Undergraduates (MIU)

All projects funded by the Madison Initiative for Undergraduates are required to address grade gaps and include strategies for increasing student success.

**Learning Analytics Pilot:** UW-Madison is participating in a pilot learning analytics project with UW-Platteville and UW Colleges. This project is funded by a UW System Growth Agenda grant and will explore using behavioral data collected through the learning management system to identify at-risk students early.

**Delta Program's Course-based Interventions:** Course instructors are learning about predictors of course success and are making evidence-based interventions into their courses to reduce grade gaps.